

Universidade de Évora
Master's in Computer Engineering
Desenho de Jogos

Challenge 1 - The Path

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1 Pitch Line

Race to Victory in a Maze full of Curves and Countercurves! Navigate, Think Well and Be the First to Reach the End in this Local Multiplayer Maze Adventure!

2 Introduction

Welcome to this thrilling local multiplayer maze game, where the race against time meets the challenge of the labyrinth! In this wonderful journey, from point A to point B, 2-4 players will race against each other embarking on a quest filled with twits, turns and fun time! Only the quickest will triumph as the first player to conquer the maze and claim the victory at point B. Get ready for an fun adventure where every decision counts, every path shapes your destiny and every lack of experience can make you lose. Are you ready to navigate the maze, outsmart the opponents and emerge as the real winner? Let the maze challenge begin!

3 Demographic Breakdown

- **Target Audience:** Any age can play, any fun people would like.
- **Genre:** Puzzle game since this a Maze.
- **Intended Platform(s):** Firstly designed to PC.

4 Feature List

- **Local Multiplayer Gameplay**
- **Maze designed using a Tilemap with collision's**
- **Lever and Winning Door(Point B)**
- **Coins, Bombs and Random Speed**
- **Bee's**
- **Timer**
- **Score Board**
- **Coin Sound, Bomb Sound and Lever Sound**

5 Feature List Breakout

- **Local Multiplayer Gameplay:** The game can be played by 4 players who can interact with each other inside the maze.
- **Maze designed using a Tilemap with collision's:** The Maze was drawn using a Tilemap with collision to allow players walk past walls.
- **Lever and Winning Door(Point B):** To perform the unlock of the Winning Door, or Point B, the Player must pull the lever.
- **Coins, Bombs and Random Speed:** The maze has coins that provides the player 1 Point, Bombs that reduces the player 1 Point and a speed which is unknown soo the game can be more challenging.
- **Bee's:** Inofensive NPCs that can only block your way and late you to your final objective.
- **Timer:** Used to perform the calculus of time a player stays in the last tile of the game, the Point B, in order to check who had win.
- **Score Board:** Live Score Board that provides information about the Player Points
- **Coin Sound, Bomb Sound and Lever Sound;** Sound effects have been added when the player collect a coin, when a player steps into a bomb and when a player pulls the lever.

6 Implementation Reference

- **Game State:** All the players start initially at point A, left side of the Maze. The game progress is made through the maze walls where coins and bombs define where the players can go or whatever had passed. A player scores a point when catches a coin and loses a point when steps into a bomb. There's only a Timer defined and that is when a player walk through the winning door to check who take less time to pass it. Players can collect coins or explode bombs and can either pull a lever to open the winning door. The only rule is: The first player walking by the point B, wins. Each player have a movement defined by a specific keyboard layout. The game is fully local multiplayer allowing at minimum 2 players and at maximum 4 players that can play at the same environment.
- **Player Actions:** Players can move along the maze, using the keyboard (each player have different keyboard movement), collect coins to gain points, explode bombs to lose points, pull a lever to open the winning door.
- **Game Setup:** The game starts with a Screen with 2 simple options, Play Game or Exit Game. The maze is designed using a tilemap with collision. The Level1 which defines the playable one and Level2 which defines a Winning Scene. There are 2-4 players (George, Werewolf, Baldric and Golem) and the game is only playable locally as a local multiplayer. Players can move right, left, up and down through the maze and the only rule is, the first to pass through the Point B, wins. George is moved by the default arrows, Werewolf is moved by the "WASD" pattern, Baldric is moved using a personalized control using the keys V (Up), Space (Down), Alt (Left) and CTRL (Right) and Golem which is moved by another personalized control where the keys U (Up), J (Down), H (Left) and K (Right) take place. The game has some sound effects, like catching a coin, exploding a bomb or even pulling the lever.
- **Victory Conditions:** A player wins the game when he walk through the door, initially closed, that is defined as the point B.
- **Progression Of Play:** The game starts at the Left Side of the Maze as a starting point (Point A). The objective is clear, reach the blocking door which is defined as the Point B. For that, you should pull a lever to open it. There are some NPCs (Bee's) that can block your way, or

late your progress through the maze. Player's speed are random so you can be very fast or very slow when it leads to run and stay tuned because you can become blocked by the Bee's, or by another player, or even the maze walls. The most smart player choosing is way to Point B, definitely is goign to win. When that happens, you'll notice that a scene with an announcing winning message will be displayed, saying what player had won.

- **Game Views:** 2D Game with top-down perspective